

AMENDMENTS TO THE DRAWINGS

The attached sheet(s) of drawings includes changes to Figures 1 and 3-5. Figures 1 and 3-5 have been amended to more clearly show features that were previously difficult to see. Figures 4 and 5 have also been amended to include an additional reference number. Figure 4 now includes reference number 64. Figure 5 now includes reference number 106.

Attachment: Replacement sheets for Figures 1 and 3-5.

REMARKS

Claims 1-16 are pending. Claims 1-6, 8-13, 15 and 16 stand rejected. Claims 7 and 14 stand objected to. The specification and drawings also stand objected to. In view of the amendments made to the specification and drawings and the remarks made below, Applicants respectfully request that the rejections and objections be withdrawn and that the claims be allowed.

The drawings stand objected to on the grounds that many features are difficult to see. Accordingly, replacement drawings are hereby submitted. Figures 1 and 3-5 have been amended to remove shading and highlight identified features. No new matter has been added. Therefore, Applicants respectfully request that the objection be withdrawn.

The drawings also stand objected under 37 CFR § 1.83(a) for failure to show every feature of the invention specified in the claims. Specifically, the “polarisation translation means” of claim 12 is not identified in the drawings. Accordingly, figures 4 and 5 have been amended to include additional reference numbers 64 and 106. Corresponding descriptive language has been added to the specification on pages 12 and 13. The basis for the additional reference figures and descriptive language is found in the second complete paragraph on page 5 of the specification. No new matter has been added. Applicants respectfully request that the objection be withdrawn.

The specification stands objected to for various informalities. The specification has been amended on page 9, paragraph 3, as suggested by the Examiner. Accordingly, Applicants respectfully request that the objection be withdrawn.

Claims 1, 5, 6, 8-13, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,144,456 to Chavanne et al. (“Chavanne”). The rejection is respectfully traversed.

Claim 1 recites an apparatus for varying the path length of a beam of radiation. The apparatus includes “an element rotatably mounted about an axis” and “driving means for rotatably oscillating said element about said axis.” Claim 1, therefore, recites an apparatus that differs from

the prior art for at least the reason that the prior art discloses the use of “a constantly rotating optic” and not a “rotatably oscillating” element. *See, e.g.*, Application, p. 2, para. 1. As explained below, Chavanne also discloses a constantly rotating element and fails to teach or suggest at least a “driver means for rotatably oscillating said element about said axis.”

Chavanne is directed to an apparatus having a multiple angle transparent rotating element. Title. As the title suggests and as disclosed in Chavanne, the transparent element rotates about an axis. *See, e.g.*, col. 2, l. 61; col. 4, ll. 53-55; Figs. 2-3, ref. no. 33. Figures 2 and 3 of Chavanne show rotation in only one direction (as indicated by reference number 33). Chavanne never teaches or suggests anything other than simple rotation, let alone oscillation, of the transparent element.

It is possible that the Examiner assumes that because Figures 5-7 of Chavanne show a periodic change in beam path, oscillation of the transparent element occurs. However, this is incorrect. The transparent elements of Chavanne are disclosed to be either four-sided or eight-sided. Figs. 2-4, 7. Rotation of the four-sided element will result in periodic beam path changes every 90° of rotation. Figs. 5-6. Rotation of the eight-sided elements will result in periodic beam path changes every 45° of rotation. Fig. 7. However, this periodicity or oscillation in the beam path is not the result of an *oscillating* transparent element. The elements of Chavanne appear to simply rotate, thus creating the periodic changes in beam path. There is no suggestion in Chavanne that the Chavanne elements rotate back and forth in an oscillating manner. For at least this reason, Chavanne fails to render claim 1 unpatentable.

Claim 1 is thus allowable over Chavanne. Claims 5, 6 and 8-13 depend from claim 1 and are allowable over Chavanne for at least the same reasons that claim 1 is allowable over Chavanne. Claim 16 recites a system that includes the apparatus of claim 1, and is thus also allowable for at least the same reasons that claim 1 is allowable.

Claim 15 recites a method for varying the path length of a beam of radiation. The method includes providing an element, “rotatably mounting said element about an axis; and

rotatably oscillating said element about said axis.” As explained above, Chavanne fails to teach or suggest the oscillation of a transparent element. Chavanne only teaches the rotation of the transparent element. For at least this reason, claim 15 is allowable over Chavanne.

Because Chavanne fails to teach or suggest each element of claims 1, 5, 6, 8-13, 15 and 16, these claims are allowable over Chavanne. Accordingly, Applicants respectfully request that the rejections be withdrawn and the claims be allowed.

Claims 2-4 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chavanne in view of U.S. Patent Application No. 2005/0168751 to Horii et al. (“Horii”). The rejection is respectfully traversed.

Claims 2-4 depend from claim 1. As explained above, claim 1 is not rendered unpatentable by Chavanne for at least the reason that Chavanne fails to teach or suggest “driving means for rotatably oscillating said element about said axis.” For at least this same reason, claims 2-4 are also not rendered unpatentable by Chavanne.

Horii is directed to an optical imaging apparatus with an optical scanning probe. Abstract. Although Horii is relied upon in the Office Action to teach the use of a galvanometer as a driving means (Office Action, p. 8), Horii fails to remedy the inadequacies of Chavanne. Specifically, Horii does not teach or suggest a driving means that rotatably oscillates the element recited in claim 1. Therefore, for at least this reason, Horii does not render claims 2-4 unpatentable.

Because the combination of Chavanne and Horii fails to teach each element and limitation of claims 2-4, claims 2-4 are allowable over the cited combination. Applicants respectfully request that the rejections be withdrawn and the claims be allowed.

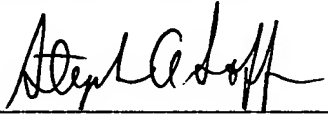
Claims 7 and 14 stand objected to as being dependent upon a rejected base claim, but would otherwise be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicants are grateful for the Examiner’s indication of allowable subject matter in these claims. However, because depend from claim 1, and because

claim 1 is believed to be allowable, as explained above, Applicants believe that claims 7 and 14 are also allowable. Applicants respectfully request that the objection be withdrawn and the claims be allowed.

In view of the above amendment, Applicants believe the pending application is in condition for allowance.

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Respectfully submitted,

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Attachments